

DEPARTMENT OF THE NAVY

OFFICE OF THE CHIEF OF NAVAL OPERATIONS WASHINGTON, DC 20350-2000

IN REPLY REFER TO

OPNAVINST 8550.9K OP-374P

0 5 MAY 1989

### OPNAV INSTRUCTION 8550.9K

From: Chief of Naval Operations

Subj: EXERCISE AND TRAINING (ET) MINE MATERIAL PROGRAM

Ref:

(a) OPNAVINST S8010.12E (NOTAL)

(b) OPNAVINST C5040.15C (NOTAL)

(c) OPNAVINST 5000.42C (NOTAL)
(d) OPNAVINST S5510.155C (NOTAL)

(d) OPNAVINST S5510.155C (NOTAL)

Encl:

(1) Definitions and Description of ET Mine Types

(2) Functional Suitability Classification Definitions

(3) List of Approved Exercise and Training Mines

- 1. <u>Purpose</u>. To revise policy and provide guidance for management of the Exercise and Training (ET) Mine Material Program.
- 2. Cancellation. OPNAVINST 8550.9J.
- 3. <u>Background</u>. The Exercise and Training (ET) Mine Program is concerned principally with ensuring the availability of material to fulfill the exercise and training requirements of the fleet. Proper management of the program requires the establishment of allowances for fleet users to permit fulfillment of these requirements.
- 4. <u>Definitions</u>. Enclosure (1) provides definitions of the various ET mine types. Destructors (DSTs) Mk 36, Mk 40, Mk 41 and M117D Mk 59 are also encompassed by the word "mine" for purposes of this instruction. Enclosure (2) provides definitions of the functional suitability classifications which are used in designation of the ET mines in Enclosure (3).

#### 5. Policy

a. <u>Training Requirements</u>. The following ET mine types, as defined in enclosure (1), will be utilized to meet the exercise and training requirements indicated:

#### Training Requirements

Simulated Influence Minefield for Fleet Minesweeping Exercise and War Games

Aircraft Mine Delivery

Submarine Mine Delivery



#### ET Mine Types

Actuation Mine (AM) Versatile Exercise Mine (VEM)

Laying Mine (LM)

Laying Mine (LM)
Laying Mine, Modified (LM(M))

0579LD0545130

Mine Warfare Readiness
Certification Inspection (MRCI)

Laying Mine, Modified (LM(M))
Laying Mine (LM)
Versatile Exercise Mine (VEM)
Hunting Mine, Bottom (HTM(B))
Mechanical Sweep Mine (MSM)

Aircraft Crew Handling and/or Loading

Handling Mine (HM)

Submarine Crew Handling and/or Loading

Handling Mine (HM)

Submarine Mine Detection and Avoidance

Hunting Mine, Moored (HTM(M))

Development of Proficiency in Mine Assembly and Testing by Mine Assembly Personnel Shop Mine (SM)

Development of Proficiency in Mine Assembly and Testing by CV Assembly Personnel

Mk 75 (Inert) Modification Kit

Moored Mine Mechanical Sweeping and Moored Minehunting

Mechanical Sweep Mine (MSM)

Bottom Minehunting

Hunting Mine, Bottom (HTM(B))

Shipboard Acceptance Tests

Certified Handling Mine (CHM)

Stockpile-to-Target Tests for Reliability Testing

In-Water Reliability Evaluation
Mine (IRE)

b. Approved Mines. Mines approved for use in the ET program are listed in enclosure (3). Formerly approved ET mine configurations not listed in enclosure (3) have been declared obsolete.

#### c. Allocations

(1) Non-Combat Expenditure Allocations (NCEA) for Munitions are issued by the Chief of Naval Operations (CNO) annually following reference (a) guidance and are based on fleet requirements and asset availability. Sub-allocations are issued by the Fleet Commanders in Chief (FLTCINCs) to subordinate Type Commanders (TYCOMs) based on TYCOMs mine training and certification requirements. Allocations for Fleet and Joint Exercises will also be under the management and control of the FLTCINCs. The Naval Sea Systems Command (NAVSEASYSCOM), Naval Air Systems Command (NAVAIRSYSCOM), Chief of Naval Education and Training

(CNET) and Naval Reserve Force (NAVRESFOR) also are afforded allocations to provide for research and development (R&D) efforts, In-Water Reliability Evaluations (IRE) and/or Fleet training.

- (2) An ET Mine Availability Plan will be issued by CNO annually per reference (a) and will list the anticipated requirement for various ET materials projected over a ten-year period. These materials are projected as support requirements for training and scoring for Mine Warfare Readiness Certification Inspection (MRCI) for Squadrons/Units having a Mine Warfare (MIW) mission as defined in reference (b), and will also support various Fleet and Joint Exercises, NAVSEASYSCOM, NAVAIRSYSCOM, NAVRESFOR and R&D Centers requirements. Loading and handling training and CNET requirements will also be addressed. The projected ten-year plan will take into consideration the scheduled fleet introduction of new mines.
- d. Recovery, Maintenance, and Replacement. In order to conserve material, ET mines will be recovered whenever possible, reconditioned as necessary, expendable components replaced, and mines reused. Mines and components expended either by reaching the end of their useful life or by loss will be replaced. Ordering of replacements for expendable components in advance of actual expenditure is authorized and encouraged in order to minimize the turnaround time. However, no more than a 90-day advance supply of replacement components is authorized. (A 90-day supply is defined as the largest quantity of expendables used in any given 90-day period of the previous year). Replenishment in any one fiscal year shall be limited to the replenishment allowance quantities indicated in the annual Non-combat Expenditure Allocations (NCEA).
- e. <u>Procurement and Support</u>. Procurement and support actions will be guided by reference (a).

#### 6. Special Requirements

- a. Requirements for other than training or exercise purposes listed in paragraph 5a (e.g., aircraft certification and ship compatibility tests) and/or special configurations shall be considered on a case-by-case basis. Requests should be submitted to Chief of Naval Operations (OP-374) via cognizant FLTCINC or SYSCOM with a copy to Commander, Naval Sea Systems Command (PMS-407); Commander, Mine Warfare Command (COMINEWARCOM); Commander, Mobile Mine Assembly Group (COMOMAG); and Naval Mine Warfare Engineering Activity (NAVMINEWARENGACT).
- b. ET requirements and/or special configurations which are identified by a Fleet user in response to a new or expanded

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training requirement and are not included in paragraph 5a nor defined in enclosure (1) will require submission of a Tentative Operational Requirement (TOR) following reference (c) guidance.

7. Requisitions. Requisitions for material required to obtain and maintain allowances will carry MILSTRIP Project Code "874".

#### 8. Action

#### a. Naval Sea Systems Command

- (1) Provide implementing directives and publications relative to support, assembly, maintenance, and use of ET mines.
- (2) Procure, stock, and distribute ET mine material to fulfill and sustain approved allowances by monitoring usage and inventory of ET mine material.
- (3) Obtain and issue National Stock Number/Navy Ammunition Logistic Code (NSN/NALC) designations for unique ET mine material.
- (4) Review IRE and R&D ET mine requirements periodically and include these requirements in the Non-combat Expenditure Requirement (NCER) update annually.

## b. Naval Air Systems Command

- (1) Periodically review allotments to ensure that ET mine availability is responsive to NAVAIR's ET requirements, including anticipated aircraft certification projects.
- (2) Include ET mine requirements in the NCER update annually.
- (3) Designate a subordinate commander to coordinate requirements and monitor expenditures to ensure allocations are not exceeded for all ET mine material.

#### c. Commander Naval Reserve Force

- (1) Periodically review allotments to ensure that ET mine availability is responsive to NAVRESFOR's ET requirements, including anticipated training exercises.
- (2) Include ET mine requirements in the NCER update annually.
- (3) Allocate allowances (annually) to subordinate commands based on the NCEA.

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(4) Designate a subordinate commander to coordinate requirements and monitor expenditures to ensure allocations are not exceeded for all ET mine material.

## d. Fleet Commanders in Chief

- (1) Delegate authority to COMOMAG through COMINEWARCOM to requisition and maintain ET mine material quantities not to exceed the quantities listed in the annual NCEA.
- (2) Periodically review allotments to ensure that ET mine availability is responsive to Fleet ET requirements, including anticipated Fleet and Joint Exercises.
- (3) Include ET mine requirements in the NCER update annually.
- (4) Allocate allowances (annually) to subordinate commands based on the NCEA.
- (5) Designate a subordinate commander to coordinate requirements and monitor expenditures to ensure allocations are not exceeded for all ET mine material.

#### e. Chief of Naval Education and Training

- (1) Periodically review allotments to ensure that ET mine availability is responsive to mine warfare training requirements, and include CNET's ET mine requirements in the NCER update annually.
- (2) Allocate allowances (annually) to subordinate command based on the NCEA.
- (3) Designate a subordinate command to request and maintain ET mine requirements in support of mine warfare training which do not exceed the quantities listed in the NCEA.

#### f. Commander, Mine Warfare Command

- (1) Periodically review the ET program to determine if allowances and the overall program is responsive to Fleet ET requirements.
- (2) Monitor and advise each FLTCINC on the availability of fleet units to carry out war plans by analysis or operational readiness standards achieved through the ET program.
- (3) Review the ET Asset Availability Plan and provide comments/recommendations to CNO annually.

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- (4) Monitor ET mine usage and advise interested parties and NAVSEASYSCOM on ET mine usage data quarterly.
- 9. <u>Security</u>. Classified ET mines may be used in combined exercises with a foreign country, as indicated in reference (d). Classified mines will be used only in areas where recovery by unauthorized personnel is unlikely.

| Dictrib                | ntion. |   |  |  |  |
|------------------------|--------|---|--|--|--|
| Distribution: SNDL 21A |        | (Fleet Commanders in Chief)                     |  |  |  |
| SNDL                   | 23C3   | (Naval Reserve Force Commander)                 |  |  |  |
|                        |        | · · · · · · · · · · · · · · · · · · ·           |  |  |  |
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|                        | 26F    | (Commander Operation Test and Evaluation Force) |  |  |  |
|                        | 26FF   | (Mine Warfare Inspection Group)                 |  |  |  |
|                        | 26GG   | (Explosive Ordnance Disposal Group and Unit)    |  |  |  |
|                        | 26SS   | (Mobile Mine Assembly Group and Unit)           |  |  |  |
|                        | 28G    | (Mine Group, Division and Squadron)             |  |  |  |
|                        | 30     | (Mine Warfare Ships)                            |  |  |  |
|                        | 42A    | (Fleet Air Commands)                            |  |  |  |
|                        | 4 2B   | (Functional Wing Commanders)                    |  |  |  |
|                        | 42J    | (Carrier Air Wing) (CVW) (CVWR)                 |  |  |  |
|                        | 42K    | (Attack Squadron) (VA)                          |  |  |  |
|                        | 42N    | (Air Anti-Submarine Squadron)                   |  |  |  |
|                        | 42P    | (Patrol Wing and Squadron)                      |  |  |  |

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Copy to (continued):
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        42W
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        50A
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                 (Undersea Warfare Engineering Station Detachment
        C84D
                  (Hawthorne, NV, only))
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#### DEFINITIONS AND DESCRIPTION OF ET MINE TYPES

- 1. Exercise and Training (ET) Mine: ET mines are reusable mine configurations used primarily for training. The mines use an inert loaded mine case. Small explosive devices and/or pyrotechnics are used in some mine configurations to provide realism during mine delivery and actuation simulation and to aid in mine recovery. Specific definitions of ET mine types are as follows:
- a. Actuation Mine (AM): Actuation mines are used primarily to exercise the total weapon stock-pile-to-target sequence and/or to assess mine countermeasure systems and tactic/techniques during fleet exercises or naval war games at sea. Target response characteristics of the actuation mine are identical to those of the service mine of the same Mk and Mod. Actuation mines may be either Flight or Non-Flight.
- (1) Actuation Mine (Flight) (AM(F)): The Actuation Mine, Flight is functionally identical to the service mine of the same Mk and Mod. It consists of an inert-loaded mine case, containing serviceable mine detection, firing and safety devices. The bottom mine has an externally attached float that contains a pyrotechnic smoke signal and approximately 200 feet of nylon line used for recovery. When the mine actuates, it releases a smoke signal. At a preset time, the float is released, which enables recovery teams to locate and recover the mine. Actuation mines use a sonar transmitter (pinger), which aids in location and recovery.
- (2) Actuation Mine (Non-Flight) (AM(NF)): The Actuation Mine, Non-Flight is identical to the flight actuation mine, except it does not use flight gear and is planted by surface craft rather than aircraft.
- Mines are used to assess the effectiveness of surface/airborne mine countermeasure systems (sweeping and hunting) and the tactics/techniques employed by these systems. A VEM system is comprised of the Versatile Exercise Mine, Mine Actuation Indicator, Over-the-Side Transducer, Mine Programmer/Analyzer, Data Transfer Unit, Mine Computer Program, and Special Test and Support Equipment. The system can simulate the actuation system of most known bottom mines. In addition to assessing the effectiveness of mine countermeasures, VEMs assist in the development of new mine sensors and minesweeping tactics.
- (4) <u>Actuation Mine (Submarine) (AM(S))</u>: The Submarine Actuation Mine is functionally identical to the service mine of

the same Mk and MOD. It consists of an inert-loaded mine case, containing serviceable mine detection, firing and safety devices, guidance and control, and main assembly. A sonar transmitter is used to aid in location and recovery. When the mine actuates, it releases a smoke signal to indicate simulated detonation. To aid in mine recovery the mine is assembled with a releasable weight that when released allows the mine to surface for recovery.

- b. Laying Mine (LM): The laying mine is used for mine delivery practice by delivery vehicles (aircraft & submarine). It is inert-loaded to the service mine weight and center of gravity characteristics. The mines internal components are removed and are replaced by an inert weight. Laying mines used in aircraft delivery practice are assembled with functional flight gear and those mine components that interface with the aircraft armament system. The Mk 52/55 Laying Mines may also employ an optional locator float installed in a special tail cover and upon release of the flight gear, the float is ejected and rises to the surface to indicate the mine's position. Moored and bottom laying mines employ explosive devices associated with the mine's flight gear and/or mine case and anchor separation. A sonar transmitter is installed to aid in locating the mine for recovery.
- (1) <u>Laying Mine Variations</u>. The introduction of new mines into the stockpile has introduced variations to the basic laying mine. These variations are:
- (a) Laying Mine (Non-Separable) (LM(NS)): The term "Laying Mine Non-Separable" refers to a moored mine which is not permitted to perform the case and anchor separation sequence. The laying mines Mk 56 and Mk 60 (CAPTOR) have non-separable configurations. They have the same shape, length, diameter and external features as their service mine counterparts. When planted, the case and anchor will not separate. Mines are equipped with a sonar transmitter and the strongback on the Mk 60 can be rigged not to release to aid in recovery operations.
- (b) Laying Mines (Separable) (LM(S)): The term "Laying Mine Separable" refers to a moored mine which is permitted to perform the case and anchor separation sequence. The Laying Mine Mk 57 has separable configurations. These mines are the same as the non-separable except the non-operational anchors are replaced with an operable anchor that allows the case and anchor to separate. The case is released at a predetermined time to come to the surface for recovery.
- (c) <u>Laying Mine (Modified) (LM(M))</u>: The term "Laying Mine (Modified)" applies to the Mk 67 Submarine Launched Mobile Mine (SLMM). The Mk 67 Laying Mine consists of an inert loaded

explosive section, nose section, main assembly, and nonoperational mine components. This configuration will be utilized at the organizational level for complete evolution training and Submarine MRCIs. A sonar transmitter is installed to aid in recovery.

- c. Handling Mine (HM): Handling mines are used to train aircraft and submarine loading crews in the techniques of handling and loading mines for delivery. The mine is inert-loaded to the service mine weight and center of gravity characteristics. The mine Mk 67 substitutes an afterbody shell weight to simulate the Explosive Section thus providing overall weight and center of gravity simulation of a service mine. Handling mines used by aircraft loading crews are assembled with all external components that interface with the aircraft and nonfunctional flight gear. Submarine handling mines contain all external components that interface with the submarine launching system. Unlike the laying mine, the handling mine does not contain a sonar transmitter or any explosive devices.
- d. <u>Mechanical Sweep Mine (MSM)</u>: A mechanical sweep mine is an inert-loaded Mk 6 moored mine assembled without actuation mechanisms. It is used for developing proficiency in mechanical minesweeping techniques.
- e. <u>Shop Mine (SM)</u>: A shop mine is used to provide general mine familiarization, classroom instruction and to develop proficiency in mine assembly and testing. The mine consists of an inert-loaded mine case with all the mine components necessary to assemble the mine to any approved service configuration; explosive components are inert.
- f. Hunting Mine (HTM): A hunting mine is an inert-loaded mine used to develop proficiency in the techniques of minehunting and for mine detection and avoidance training. Hunting mine types include:
- (1) <u>Hunting Mine, Bottom (HTM(B))</u>: A bottom hunting mine is an inert loaded mine case which has no internal components and the external configuration simulates a service mine case. Normally hunting mines are recovered, therefore, a sonar transmitter is installed. Obsolete or damaged cases may be used as bottom hunting mines.
- (2) <u>Hunting Mine, Moored (HTM(M))</u>: A moored hunting mine is an inert loaded mine used for mine detection and avoidance training by submarine and surface units. Mines may be configured to simulate moored service mines, Mk 56, Mk 57, and Mk 60. Moored hunting mine configuration may use either a fully

operational anchor or a clump with a fixed length of mooring line to provide the desired moored depth.

- g. <u>Certified Handling Mine (CHM)</u>: A certified handling mine is required for acceptance inspections of shipboard weapon installations upon completion of new ship construction or ship-yard overhaul. Each mine is issued with a signed certification checksheet, valid for one year from certificate date. Annual recertification of the mine's condition and external interface dimensions is required.
- h. <u>In-Water Reliability Evaluation (IRE) Mine</u>: An In-Water Reliability Evaluation Mine is used to assess the operational reliability of service mines through a stockpile-to-target evolution that approximates as nearly as possible their wartime employment. The IRE mine is identical to its service mine counterpart, except that it is assembled with an inert loaded mine case and a minimum of explosive devices. Special instrumentation such as a sonar transmitter to facilitate recovery and a time fire recorder to record time of actuation are installed. IRE mines are assembled using only serviceable (Code A) components except for the mine case and arming device. (Explosive loaded cases may be used for special test purposes.)
- i. Mk 75 (Inert) Modification Kit: A kit containing inert components for use in providing Destructor (DST Mk 36, Mk 40, Mk 41, M117D Mk 59) familiarization, instruction, and development of proficiency in assembly and testing. The kit consists of all inert/empty components, except flight gear, necessary to assemble the inert Mk 80 series and M117 general purpose bombs into any approved service configuration.
- j. Mk 131 (Inert) Bomb/Mine Conversion Kit: A kit containing inert components for use in providing mine Mk 62, Mk 63, Mk 64 familiarization, instruction, and development of proficiency in assembly and testing. The kit consists of all components, except flight gear, necessary to assemble the inert Mk 80 series bombs into any approved service configuration.

#### FUNCTIONAL SUITABILITY CLASSIFICATION DEFINITIONS

- 1. <u>STANDARD (STD)</u>. Classification of the most advanced and satisfactory equipment approved for service use these are preferred for procurement.
- 2. <u>PLANNED STANDARD (PL STD)</u>. Classification of equipment under evaluation or consideration. Approval for production is required for equipment in this category prior to procurement.
- 3. <u>SUBSTITUTE STANDARD (SUB STD)</u>. Classification of equipment approved for service use which does not have military characteristics as satisfactory as STANDARD equipment. When necessary, this equipment may be procured to supplement the supply of STANDARD equipment.
- 4. <u>LIMITED STANDARD (LTD STD)</u>. Classification of equipment approved for service use which does not have satisfactory military characteristics identifiable as STANDARD or as SUBSTITUTE STANDARD equipment, but which is a usable substitute. Complete major units will not be procured. Component parts, accessories and complementary articles (even though they too may be LIMITED STANDARD equipment), if economical may be procured when necessary, to maintain complete major units in serviceable condition throughout a reasonable life expectancy.
- 5. OBSOLESCENT (0). Classification of equipment which no longer has satisfactory military characteristics but must be retained in service pending availability of improved replacements. Complete units, component parts, accessories, and complementary articles will normally not be procured for the specific purpose of maintaining this equipment. Spare parts may be used, however, for their maintenance.

## LIST OF APPROVED EXERCISE AND TRAINING MINES

| 1.        | Actuation Mine |           |      |                                 |                  |
|-----------|----------------|-----------|------|---------------------------------|------------------|
| <u>MK</u> | MOD            | <u>0A</u> | NALC | NOMENCLATURE                    | CLASSIFICATION   |
| 52        | 2              | 02B       | R927 | Act. Mine Flight                | Standard         |
| 52        | 2              | 03B       | R928 | Act. Mine Flight                | Standard         |
| 52        | 2              | 05E       | R929 | Act. Mine Non-Flight            | Standard         |
| 52        | 5              | 02B       | R933 | Act. Mine Flight                | Standard         |
| 52        | 5              | 03B       | R934 | Act. Mine Flight                | Standard         |
| 52        | 5              | 05E       | R935 | Act. Mine Non-Flight            | Standard         |
| 55        | 2              | 02B       | R942 | Act. Mine Flight                | Standard         |
| 55        | 2              | 03B       | R943 | Act. Mine Flight                | Standard         |
| 55        | 2              | 04E       | R944 | Act. Mine Non-Flight            | Standard         |
| 55        | 5              | 02B       | R948 | Act. Mine Flight                | Standard         |
| 55        | 5              | 03B       | R949 | Act. Mine Flight                | Standard         |
| 55        | 5              | 04E       | R950 | Act. Mine Non-Flight            | Standard         |
| 67        | 2              | -         | R962 | Act. Mine                       | Standard         |
| 74        | 0              | -         | -    | Versatile Exercise Mine         | Standard         |
| 2.        | Laying         | Mine      |      |                                 |                  |
| MK        |                | <u>oa</u> | NALC | NOMENCLATURE                    | CLASSIFICATION   |
| 25        |                | 29K       | R914 | Laying Mine                     | Obsolescent      |
|           | te 1)          | 30K       | R915 | Laying Mine                     | Obsolescent      |
| 36        |                | 29K       | R958 | Laying Mine                     | Obsolescent      |
|           | te 1)          | 30K       | R959 | Laying Mine                     | Obsolescent      |
| 52<br>(No | ote 2)         | 02K       | R668 | Laying Mine w/<br>Locator Float | Limited Standard |
| (110      | ,              | 02K       | R916 | Laying Mine                     | Limited Standard |
|           |                | 03K       | R669 | Laying Mine w/                  | Limited Standard |
|           |                |           |      | Locator Float                   |                  |
|           |                | 03K       | R917 | Laying Mine                     | Limited Standard |
|           |                | 04K       | R670 | Laying Mine w/                  | Standard         |
|           |                |           |      | Locator Float                   |                  |
|           |                | 04K       | R918 | Laying Mine                     | Standard         |
|           |                | 05K       | R671 | Laying Mine w/                  | Standard         |
|           |                | 05K       | R919 | Locator Float<br>Laying Mine    | Standard         |

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| 55<br>(Note 2) | 02K    | R672         | Laying Mine w/<br>Locator Float | Limited Standard |
|----------------|--------|--------------|---------------------------------|------------------|
| (NOCC 2)       | 02K    | R920         | Laying Mine                     | Limited Standard |
|                | 03K    | R673         | Laying Mine w/<br>Locator Float | Standard         |
|                | 0.217  | R921         | Laying Mine                     | Standard         |
|                | 03K    |              |                                 | Standard         |
|                | 04K    | R674         | Laying Mine w/                  | Stalldard        |
|                |        |              | Locator Float                   |                  |
|                | 04K    | R922         | Laying Mine                     | Standard         |
| 56             | 05K    | R232         | Laying Mine                     | Standard         |
| 30             | 06K    | R233         | Laying Mine                     | Standard         |
|                | OOK    | RZ33         | Laying Fille                    |                  |
| 57             | OlK    | R234         | Laying Mine                     | Obsolescent      |
|                | 04K    | R714         | Laying Mine                     | Obsolescent      |
|                | 0 11.  |              |                                 |                  |
| 60             |        | R956         | Mine, Exercise and              | Standard         |
| 00             |        | 1050         | Training, Laying,               |                  |
|                |        |              |                                 |                  |
|                |        |              | Flight, Non-separable           | G1 3 3           |
| 62             | 02K    | -            | Laying Mine                     | Standard         |
| (Note 5)       | 03K    | -            | Laying Mine                     | Standard         |
|                |        |              |                                 |                  |
| 63             | 02K    | _            | Laying Mine                     | Standard         |
| (Note 5)       | 03K    | -            | Laying Mine                     | Standard         |
|                |        |              |                                 |                  |
| 64             | 03K    | -            | Laying Mine                     | Standard         |
| (Note 5)       |        |              |                                 |                  |
| ,              |        |              |                                 |                  |
| 65             | 01K    | R961         | Laying Mine                     | Standard         |
|                |        |              | 1 3                             |                  |
| DST 36         | 44K    | <b>xw8</b> 3 | Destructor, Laying,             | Standard         |
| (Note 5)       |        |              | Exercise and Training           |                  |
| (Note 3)       | 48K    | XW84         | Destructor, Laying,             | Standard         |
|                | 701    | VHOA         | Exercise and Training           | 2 canada         |
|                |        |              | Exercise and iraining           |                  |
| D.C. 4.0       | A A 17 | V1410 C      | Dogtrugtor Taying               | Standard         |
| DST 40         | 44K    | XW86         | Destructor, Laying,             | Beandard         |
| (Note 5)       |        |              | Exercise and Training           | Chandand         |
|                | 48K    | XW87         | Destructor, Laying,             | Standard         |
|                |        |              | Exercise and Training           |                  |
|                | 4 4    |              | Darlamakan Tarrima              | Standard         |
| DST 41         | 44K    | <del></del>  | Destructor, Laying,             | Standard         |
| (Note 5)       |        |              | Mine                            | Chandand         |
|                | 48K    | -            | Destructor, Laying,             | Standard         |
|                |        |              | Mine                            |                  |
|                |        |              |                                 |                  |
| 67-2           | N/A    | R682         | Laying Mine, Modified           | Standard         |
|                |        |              |                                 |                  |
|                |        |              |                                 |                  |

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| 3. <u>Handling Mine</u> |                          |                              |  |  |  |
|-------------------------|--------------------------|------------------------------|--|--|--|
| <u>Mk</u>               | <u>0A</u>                | NALC                         | NOMENCLATURE   | CLASSIFICATION   |  |
| 25                      | 29J<br>30J               | R923<br>R660                 | Handling Mine<br>Handling Mine                                   | Obsolescent<br>Obsolescent                                   |  |
| 36                      | 29J<br>30J               | -                            | Handling Mine<br>Handling Mine                                   | Obsolescent<br>Obsolescent                                   |  |
| 52                      | 02J<br>03J<br>04J<br>05J | R661<br>R662<br>R663<br>R664 | Handling Mine<br>Handling Mine<br>Handling Mine<br>Handling Mine | Limited Standard<br>Limited Standard<br>Standard<br>Standard |  |
| 55                      | 02J<br>03J<br>04J        | R665<br>R666<br>R667         | Handling Mine<br>Handling Mine<br>Handling Mine                  | Limited Standard<br>Standard<br>Standard                     |  |
| 56                      | 05J<br>06J               | R230<br>R231                 | Handling Mine<br>Handling Mine                                   | Standard<br>Standard   |  |
| 57                      | OlJ                      | R227                         | Handling Mine  | Obsolescent  |  |
| 60                      | N/A                      | R957                         | Mine Exercise and<br>Training, Handling<br>Flight                | Standard   |  |
| 60                      | N/A                      | R678                         | Mine Exercise and<br>Training, Handling<br>Submarine             | Standard   |  |
| 62<br>(Note 5)          | 02J<br>03J               | -                            | Handling Mine<br>Handling Mine                                   | Standard<br>Standard   |  |
| 63<br>(Note 5)          | 02J<br>03J               | -                            | Handling Mine<br>Handling Mine                                   | Standard<br>Standard   |  |
| 64<br>(Note 5)          | 03J                      | -                            | Handling Mine  | Standard   |  |
| 65                      | OlJ                      | R681                         | Handling Mine  | Standard   |  |
| 67-2                    | -                        | R684                         | Handling Mine  | Standard   |  |
| 67-2                    | -                        | 9 <b>W</b> 77                | Certified Handling Mine  | PL Standard  |  |
| DST 36<br>(Note 5)      | 44J<br>48J               | 2W28<br>2W27                 | Handling Mine<br>Handling Mine                                   | Standard<br>Standard   |  |

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| DST 40   | 44J | 2W26 | Handling Mine | Standard |
|----------|-----|------|---------------|----------|
| (Note 5) | 48J | 2W25 | Handling Mine | Standard |
| DST 41   | 44J | -    | Handling Mine | Standard |
| (Note 5) | 48J |      | Handling Mine | Standard |

4. Hunting Mine. Available inert mine cases, damaged or otherwise unsuitable for other applications, should be used for bottom minehunting mines. The Mechanical Sweep Mine Mk 6, Mines Mk 56, Mk 57 or Mk 60 may be used for a Moored Hunting Mine. Mines Mk 56 and Mk 60 require special configuration to permit case and anchor separation. Hunting Mines in the past have not always required recovery, mainly because unserviceable cases were used. It may be necessary to recover Hunting Mines to keep the training area bottom uncluttered and to prevent adverse environmental impact.

#### 5. Shop Mine

| <u>Mk</u><br>(No | <u>OA</u><br>ote 3) | NALC | NOMENCLATURE  | CLASSIFICATION |
|------------------|---------------------|------|---------------|----------------|
| 52               | XXN                 | _    | Shop Mine     | Standard       |
| 55               | XXN                 | -    | Shop Mine     | Standard       |
| 56               | XXN                 | -    | Shop Mine     | Standard       |
| 57               | XXN                 | -    | Shop Mine     | Obsolescent    |
| 60               | XXN                 | -    | Shop Mine     | Standard       |
| 62               | XXN                 | -    | Shop Mine     | Standard       |
| 63               | XXN                 | -    | Shop Mine     | Standard       |
| 64               | XXN                 | -    | Shop Mine     | Standard       |
| 65               | XXN                 | R680 | Shop Mine     | Standard       |
| 67               | XXN                 | R683 | Shop Mine     | Standard       |
| 74               | XXN                 | -    | VEM Shop Mine | Standard       |
| Kit Mk 75        | XXN                 | EW73 | Training Kit  | Standard       |
| Kit Mk 131       | XXN                 | LW63 | Training Kit  | Standard       |
| DST 36           | XXN                 | -    | Shop Mine     | Standard       |
| DST 40           | XXN                 | -    | Shop Mine     | Standard       |
| DST 41           | XXN                 | -    | Shop Mine     | Standard       |
| DST M117D        | XXN                 | _    | Shop Mine     | Standard       |
| Mk59             |                     |      | _             |                |

#### 6. Mechanical Sweep Mine

| <u>MK</u> | OA NAL |      | <u>NOMENCLATURE</u>                | CLASSIFICATION |  |
|-----------|--------|------|------------------------------------|----------------|--|
| 6         | OOP    | DW11 | Mine Mk 6 Mechanical<br>Sweep Mine | Standard       |  |

#### 7. In-Water Reliability Evaluation Mine

| <u>MK</u>      | MOD                  | <u>OA</u><br>(Note | NALC<br>4) | NOMENCLATUR                               | <u>CLASSIFICATION</u> |
|----------------|----------------------|--------------------|------------|---|-----------------------|
| 52<br>52       | 2                    | XXQ<br>XXQ         |            | IRE Test M:<br>IRE Test M:                | ine Standard          |
| 52             | 11                   | XXQ                |            | IRE Test M                                | ine Standard          |
| 55<br>55<br>55 | 2<br>3<br>11         | XXQ<br>XXQ<br>XXQ  |            | IRE Test M:<br>IRE Test M:<br>IRE Test M: | ine Standard          |
| 56             | 0                    | QXX                |            | IRE Test M                                | ine Standard          |
| 62<br>62       | 0                    | XXQ<br>XXQ         |            | IRE Test M<br>IRE Test M                  |                       |
| 63<br>63       | 0                    | XXQ<br>XXQ         |            | IRE Test M<br>IRE Test M                  |                       |
| 64<br>64       | 0<br>3               | XXQ<br>XXQ         |            | IRE Test M                                |                       |
| 65<br>65<br>65 | 0<br>1<br>3          | XXQ<br>XXQ<br>XXQ  |            | IRE Test M<br>IRE Test M<br>IRE Test M    | ine Standard          |
| 67<br>67       | 1<br>2               | XXQ<br>XXQ         |            | IRE Test M                                |                       |
| DST            | 36 1<br>40 1<br>41 9 |                    |            | IRE Test M<br>IRE Test M<br>IRE Test M    | ine Standard          |

- Note 1. Laying Mines Mk 25 and Mk 36 will be utilized to fulfill Mine Readiness Certification Inspection (MCRI) and work up air delivery training requirements in some areas until present stocks are expended.
- Note 2. Flight gear components and inert cases for Mk 55 and Mk 56 mines are in short supply. Therefore, restrictions are imposed upon their use. Contact COMINEWARCOM for use data.
- Note 3. OA XXN indicated that all active operational assemblies of all Mods of an approved service mine can be duplicated in a Shop Mine configuration.

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- Note 4. OA XXQ indicated that all active operational assemblies of all Mods of an approved service mine can be used in the In-Water Reliability Evaluation Mine configuration.
- Note 5. Laying and Handling Mines Mk 62, 63 and 64 use same flight gear, bombs and arming wire rigging for aircraft as do DSTs 36, 40 and 41. The only different component is the target detecting device vice the firing mechanism but these have the same interface for arming wire rigging. Therefore, the Laying and Handling DSTs 36, 40 and 41 shall be used for the Laying and Handling Mines Mk 62, 63 and 64 respectively. Target detecting devices will not be stocked to support Laying and Handling Mines Mk 62, 63 and 64.